

Faraday Highlight

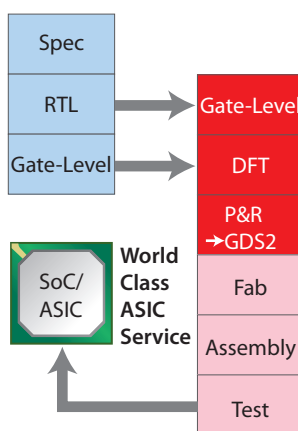
Top-Tier ASIC/SoC Supplier



Overview

Faraday's one-stop solution enables customers to achieve their complex SoC design requirements with minimum risk. Our world-class team of experienced design engineers ensures successful implementation of customers' SoCs through our robust ASIC service flow.

- RTL and gate-level hand-off flows
- Design kits delivery and training
- Customized IP based on customer's specific design requirements
- Design synthesis service from RTL to gate level
- DFT service: full scan, boundary scan, MBIST and ATPG
- Fault coverage analysis
- Floorplan in early design stages
- Customer-owned block qualification and consulting
- Signal integrity analysis
- Test and characterization program development
- ESD/LatchUp review and consultation
- Failure analysis
- Reliability test service



Faraday Quick Facts

- Spun off from UMC in 1993
 - IPO in 1999
 - TWSE: 3035.TW
 - UMC owns 15% of Faraday stock
- Revenue: \$274M USD (2012Y)
 - ASIC NRE: 5%
 - ASIC mass production: 87%
 - IP licensing: 8%
- Global network
 - Headquarters: Hsinchu, Taiwan
 - US Office: Sunnyvale, CA
 - Japan Office: Tokyo
 - Europe Office: Amsterdam
 - China Office: Shanghai, Shenzhen
- Top 50 fabless IC suppliers WW

Key IP List

Process	180nm	130nm	90nm	55nm	40nm
Cell library	-GII/LL: 110K gates/mm ² -miniLib™: 145K gates/mm ²	-HS/LL/SP: 250K/280K gates/mm ² -miniLib™: HS/SP/LL 300K gates/mm ²	-SP/LL: 400K gates/mm ² -miniLib™: LL/SP 450K gates/mm ²	-SP/LP: 1286 K gates/mm ² -miniLib™: SP/LP 1469K gates/mm ²	-LP: 2057K gates/mm ² -miniLib™: LP 2626K gates/mm ²
Memory	-SP/2P/DP SRAM, VIA-1 ROM				
Fundamental	-Regulator, POR, OSC, PLL, DLL, PWM, Charger				
	-PLL: 500MHz -DLL: 200MHz	-PLL: 1070MHz -DLL: 400MHz	-PLL: 1600MHz -DLL: 800MHz	-PLL(SP): 2000MHz -DLL(SP): 800MHz	-PLL(LP): 1600MHz -DLL(LP): 800MHz
AD/DA	6 ~24-bit, ~200MHz with SAR, Delta-Sigma, pipeline, target application in multimedia and communication				
CPU	-ARM Compliant CPU : FA526, FA616, FA626, FA606TE/FA626TE/FA726TE/FMP626 -ARM Cortex Series				
High speed I/O	-PCI Express Gen1 EP/RC Controller/PHY -SATA Gen2 Host/Device Controller/PHY -USB 2.0 Host/Device/OTG Controller + Device/OTG PHY -10/100/1000 Ethernet MAC + PHY	-PCI Express Gen1 EP/RC Controller /PHY -SATA Gen2 Host/Device Controller/PHY -USB 2.0 Host/Device/OTG Controller + Device/OTG PHY -10/100 Ethernet MAC + PHY	-PCI Express Gen2 EP Controller/PHY -SATA Gen2 Host/Device Controller/PHY -USB 2.0 Host/Device/OTG Controller + Device/OTG PHY -10/100 Ethernet MAC + PHY -xPON	-PCI Express Gen2 EP Controller/PHY -USB 2.0 Host/Device/OTG Controller + Device/OTG PHY -10/100/1000 Ethernet MAC + PHY -MIPI	-1~8G Programmable SerDes -10G-KR -USB 2.0 Host/Device/OTG Controller + Device/OTG PHY -10/100/1000 Ethernet MAC+PHY -MIPI -xPON
Peripherals I/O	-LVDS : RX:945Mbps	-DDR-2 : 800MHz -LVDS : RX/TX:945Mbps	-DDR-2 : 667 MHz/DDR-3 : 1333MHz -LVDS : TX:1.25Gbps	-DDR-2/3 Combo : 1600MHz -LPDDR-2/3 Combo:1333MHz	-DDR-2/3 Chombo : 1600MHz -LPDDR-2/3 Combo:1333MHz -LVDS : TX : 1.25Gbps,RX:1Gbps
Multimedia	JPEG, MPEG4, H.264, DSP, ISP, Capture, 2D Graphic Engine, Noise Reduction				



FARADAY

Faraday specializes in SoC designs with:

- Embedded ARM® CPU core
- Embedded Faraday connectivity IPs
- Embedded Faraday mixed-signal IPs

Production Highlights

- Early silicon validation of IP
- Dedicated production team
- In-house test equipment
- World-class manufacturing partners
- Multi-project wafer shuttle services

ASIC Mass Production Highlights

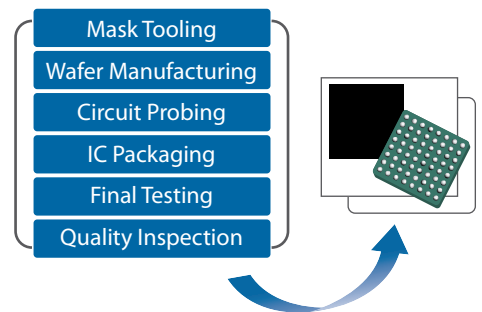
Faraday's world-class engineering services provide a successful transition of customer's SoC through design to volume production. Faraday works closely with leading manufacturing partners to get a guaranteed access to advanced processes, a wide variety of packaging options, and cost effective testing services. Since established in 1993, Faraday has been acknowledged its expertise and capabilities with over thousands of successful designs in a wide range of application, covering consumer electronics, multimedia, display, communication, networking, and PC peripheral/storage, along with hundreds of million ASIC chips shipped annually worldwide.

- ASIC provider for UMC foundry from 0.5µm to 40nm/28nm
- Access to UMC shuttle runs for IP and ASIC design validation
- IEC Quality Assessment System for Electronic Components
- ISO 9001:2008 certified
- Dedicated production service team
- Quality and reliability services include: Failure analysis, standard and custom qualification, yield improvement

Manufacturing Partners:

- Mask: PSMC, TEC, DNP, UMC
- Foundry: UMC, Hejian
- Circuit probing: KYEC, STATS ChipPAC
- IC assembly & packaging: ASE, SPIL, TICP, Amkor
- Device final test: KYEC, STATS ChipPAC

[Seamless Production Management]



Processes Supported

- 28nm, 40nm, 55nm, 65nm, 90nm, 0.13µm, 0.18µm, 0.22/0.25µm, 0.35µm, 0.5µm cell-based SoC

FARADAY TECHNOLOGY CORPORATION

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